



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/914,482	08/28/2001	Masahiro Yatake	U013615-2	8058

140 7590 12/03/2003

LADAS & PARRY  
26 WEST 61ST STREET  
NEW YORK, NY 10023

EXAMINER

FAISON, VERONICA F

ART UNIT	PAPER NUMBER
----------	--------------

1755

DATE MAILED: 12/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/914,482

Applicant(s)

YATAKE, MASAHIRO

Examiner

Veronica F. Faison

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 1755

**DETAILED ACTION*****Response to Amendment***

Claims 1-2, 14, 17, 20 and 21 have been amended, claims 22 and 23 have been added and no claims have been canceled. Hence, claims 1-23 are pending in the application. The amendment was persuasive to the extent that the claim objections and the 112 rejection have been withdrawn. The Taniguchi reference has also been withdrawn.

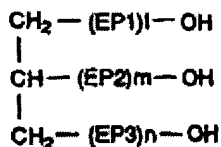
***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 5-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 1 010 802.

EP 1 010 802 teaches an ink composition comprising at least a reactive dye, a surfactant, water and at least one compound represented by formula (I)



wherein EP1, EP2, and EP3 each independently represent an ethyleneoxy or propyleneoxy group, and  $\text{l} + \text{m} + \text{n}$  is a natural number of not less than 1. The reference also teaches that both ethyleneoxy group and the propyleneoxy group may exist in the

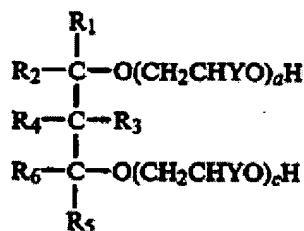
Art Unit: 1755

same molecule (abstract and page 4 para. 0019-0020). The amount of the compound present in the composition is not less than 1 percent by weight and not more than 15 percent by weight (page 5 para. 0023). The main solvent of the composition is water, however an organic solvent may also be present in the composition such as glycerin, 1, 2-pentanediol and 1,2-hexanediol in the amount of not more than 50 percent by weight (page 6 para. 0033-0034). The reference remains silent to the molecular weight of formula (I), however it would have been obvious to one of ordinary skill in the art that a compound having the same formula and limitation would have the same molecular weight. EP 1 010 802 fails to specifically exemplify the use of formula (I) and glycerin in combination as claimed by applicant. Therefore, it would have been obvious to one of ordinary skill in the art to use formula (I) and glycerin in combination as claimed by applicant as EP 1 010 802 also discloses the use of formula (I) and glycerin but shows no example incorporating them.

Claims 1, 3 and 15-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hickman et al (US Patent 5,356,464) in view of Uemura et al (US Patent 5,928,419).

Hickman et al teach an aqueous ink composition comprising an aqueous carrier medium, a colorant, and at least one anti-curl agent. The colorant may be a pigment dispersion or a dye. The anti-curl agent may be represented by a polyoxyalkylene derivatives having the following formula:

Art Unit: 1755



wherein  $R_1$ ,  $R_2$ ,  $R_4$ ,  $R_5$  and  $R_6$  and independently H;  $C_nH_{2n+1}$ , where  $n=1$  to 4; or  $C_nH_{2n}O(CH_2CHYO)_bH$  where  $n=1$  to 6 and  $b=0$  to 25;  $R_3$  may be H;  $C_nH_{2n+1}$ , where  $n=1$  to 4; or  $C_nH_{2n}O(CH_2CHYO)_bH$  where  $n=1$  to 6 and  $b=0$  to 25; Y may be H or  $CH_3$  (col. 14-44). The reference further teaches that the ink composition may be used in an ink set comprising cyan, magenta and yellow dye-based ink compositions (col. 10 lines 27-34). The examples of the reference teach that a mixture of solvents which include diethylene glycol monobutyl ether may be used in the ink composition. Hickman et al fails to teach glycerin in the ink composition.

Uemura et al teaches an ink composition comprising organic solvents such as glycerin and diethylene glycol monobutyl ether (col. 9 lines 38-53). Therefore the subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have replaced diethylene glycol monobutyl ether with glycerin because the substitution of art recognized equivalents as shown by Uemura would have been within the level of ordinary skill in the art.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hickman et al in view of Uemura et al as applied to claims 1 and 3 above, and further in view of Rehman.

Art Unit: 1755

Hickman et al and Uemura et al are described above, but fail to teach a surface treated pigment.

Rehman teaches pigments can be combined with a suitable dispersant to be self-dispersing (col. 2 lines 50-52). The reference further teaches self-dispersing pigments are modified by attaching of one or more organic groups to the pigment (col. 3 lines 5-35). The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have replaced pigment and dispersant with self-dispersing pigment because the substitution of art recognized equivalents as shown by Rehman would have been within the level of ordinary skill in the art.

### ***Conclusion***

The remaining references listed on form 1449 have been reviewed by the Examiner and are considered to be cumulative to or less material than the prior art references relied upon in the above rejections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Veronica F. Faison whose telephone number is 703-305-3918. The examiner can normally be reached on Monday-Thursday and alternate Fridays 8 am to 5 pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell can be reached on 703-308-3823. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1755

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

After the move to new USPTO headquarters in Alexandria, VA, tentatively scheduled for the week of December 22, 2003, the Examiner's new phone number will be (571) 272-1366 and Mr. Bell's new phone number will be (571) 272-1362.

Veronica F. Faison



**Mark L. Bell**  
Supervisory Patent Examiner  
Technology Center 1700